

Foldables for Interactive Transformational Notebooks



Both student and teacher versions are included.

- Reflections
- Translations
- Rotations
- Dilations

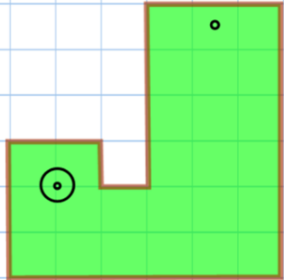

<http://GeometryGems.wikispaces.com/imathination/>

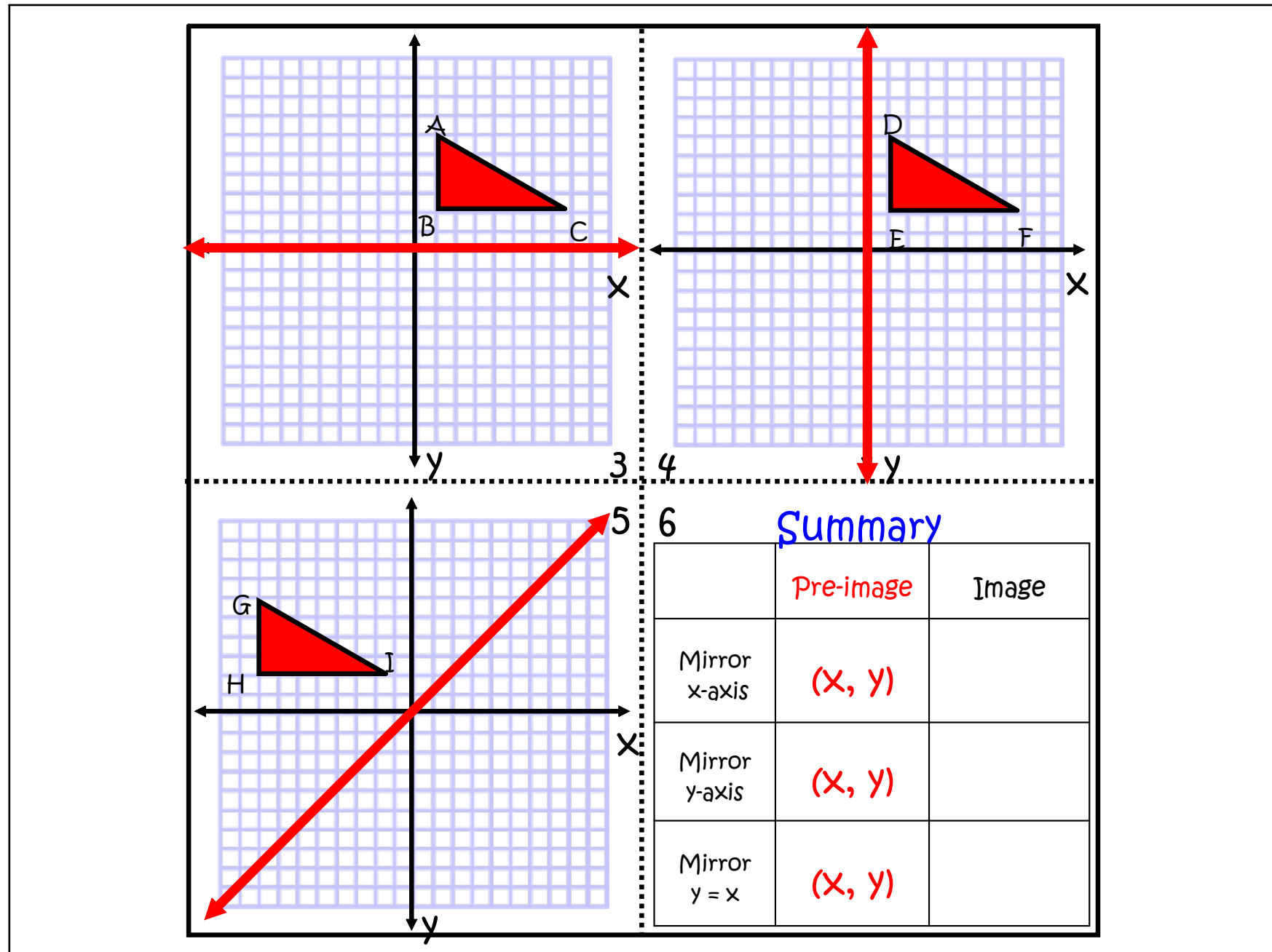
Nancy Norem Powell

Information

A set of student notes and samples of teacher answers are included.

1. There are notes for reflections, translations, rotations, and dilations. Each set is two pages. If you are downloading the SMART Notebook file, you can easily edit them.
2. These notes are intended to be printed double sided and printed in color. If you print them, print them so that they are **landscaped, duplex (double-sided)** and choose flip on the **short edge** so the front lines up with the back. If you choose not to print them in color, students can easily add their own color to the notes.
3. The notes should be cut out and folded on the dotted lines. I have added pictures on <http://GeometryGems.wikispaces.com/iMathination/> to show you what these notes look like when they are folded.

 <p>Mini Golf hole-in-one</p>	<p>Definition:</p> <p>Notation:</p> <p>Properties:</p>
<p>Glue here</p>	<p>1</p> <p>Reflection</p>  <p>"Flip"</p>



Reflection - student page 2

Translation

"slide" 1



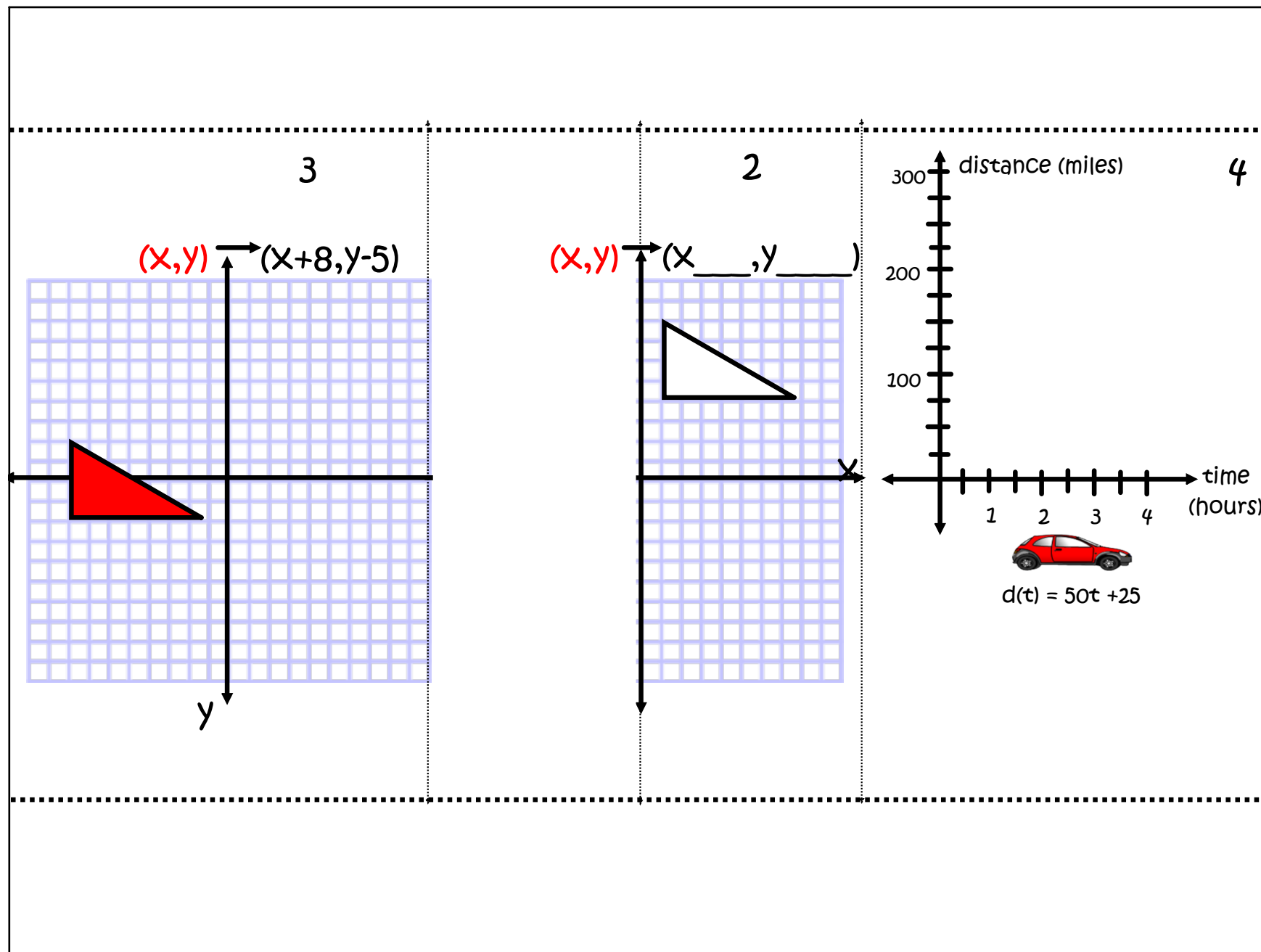
Translation

Definition:

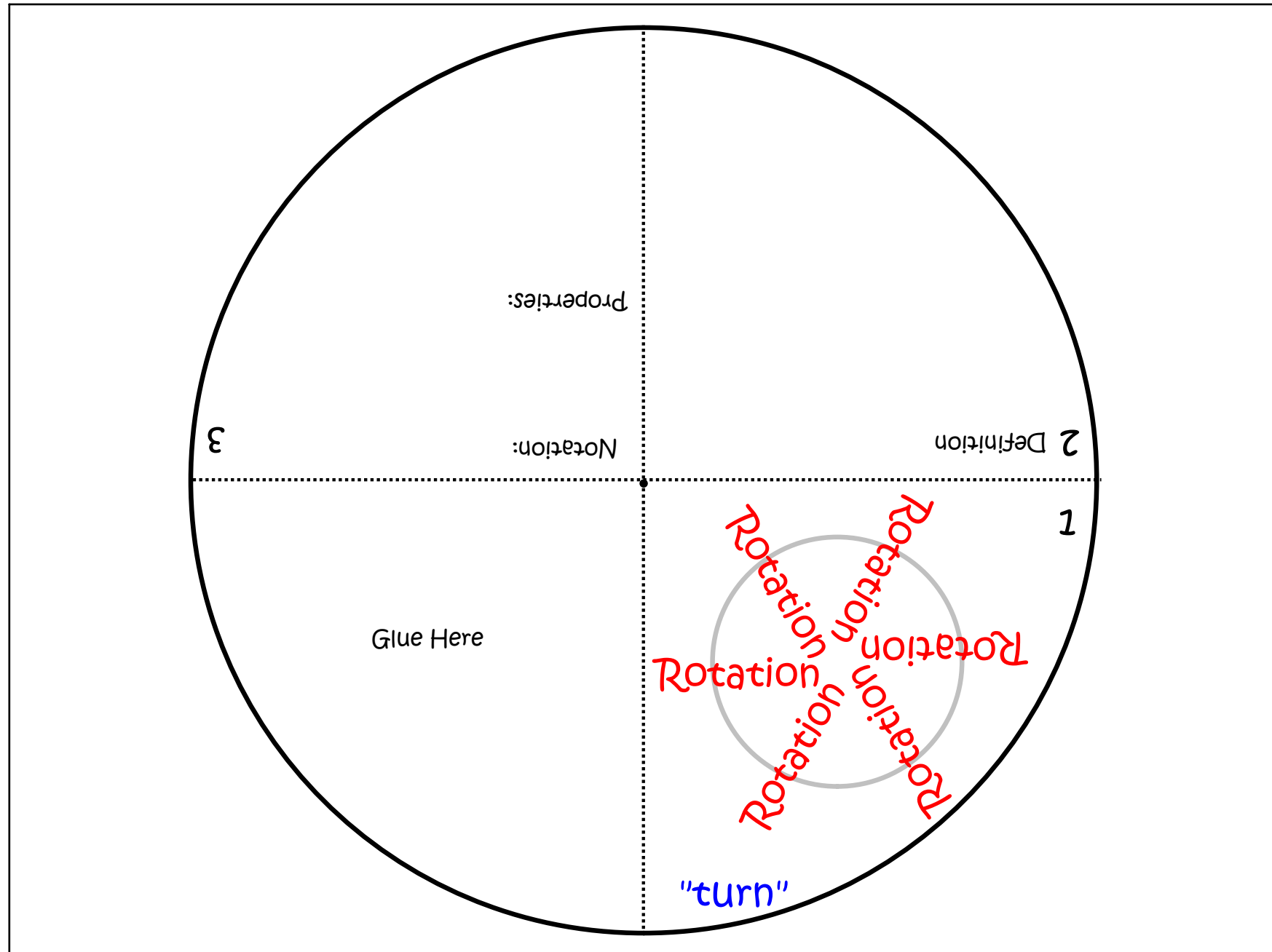
Notation:

Properties:

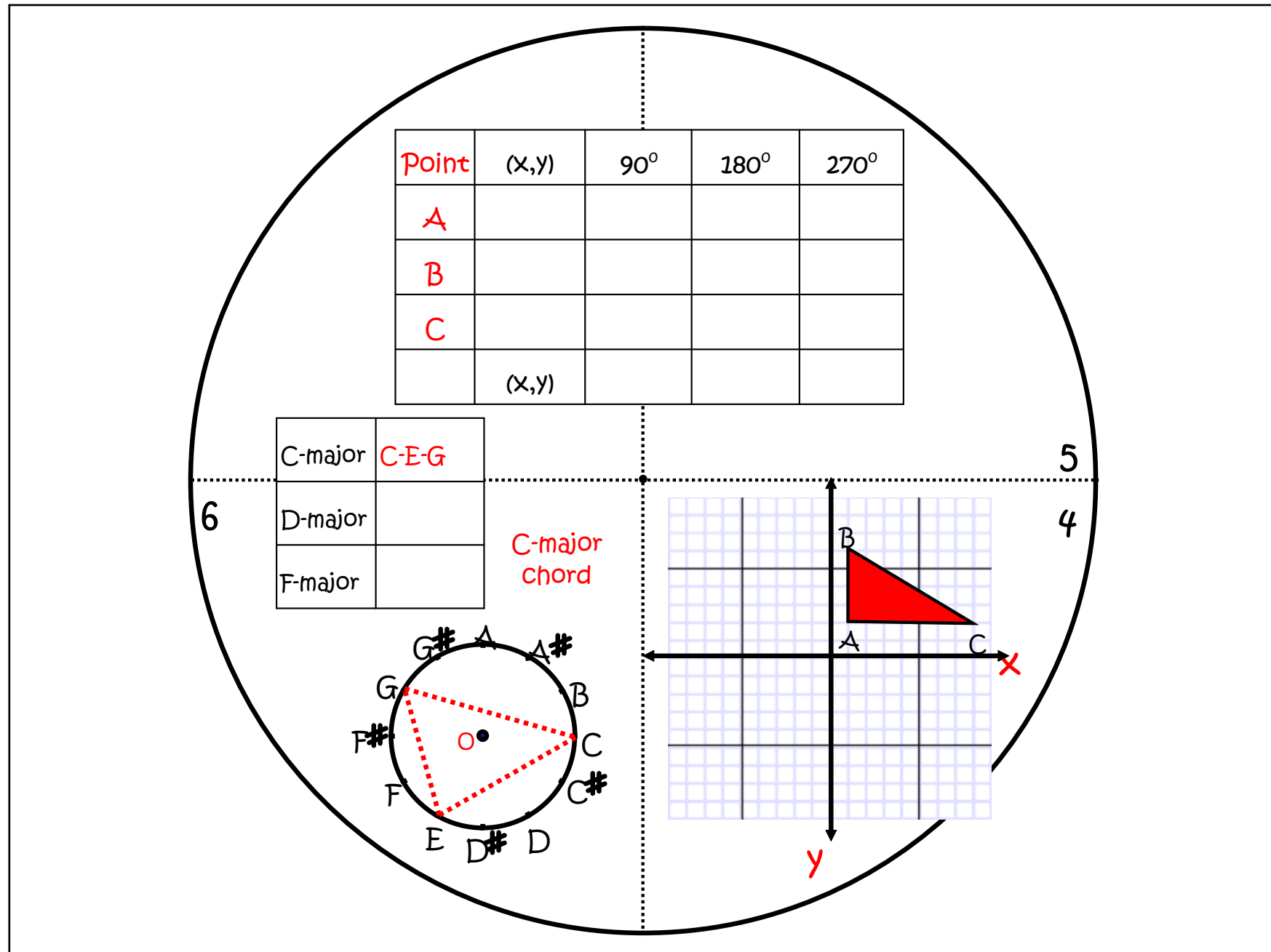
Glue Here



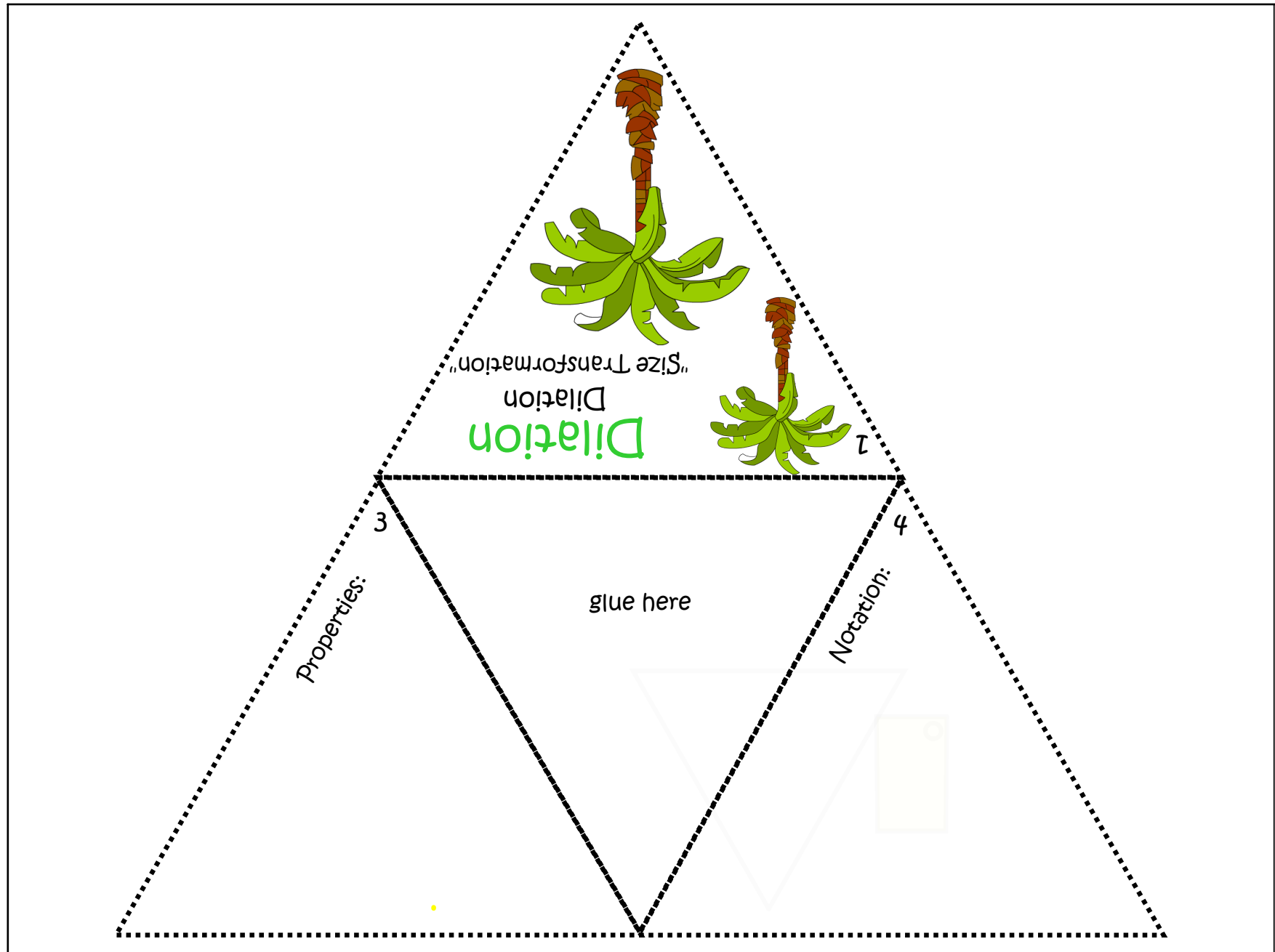
Translation - student page 2



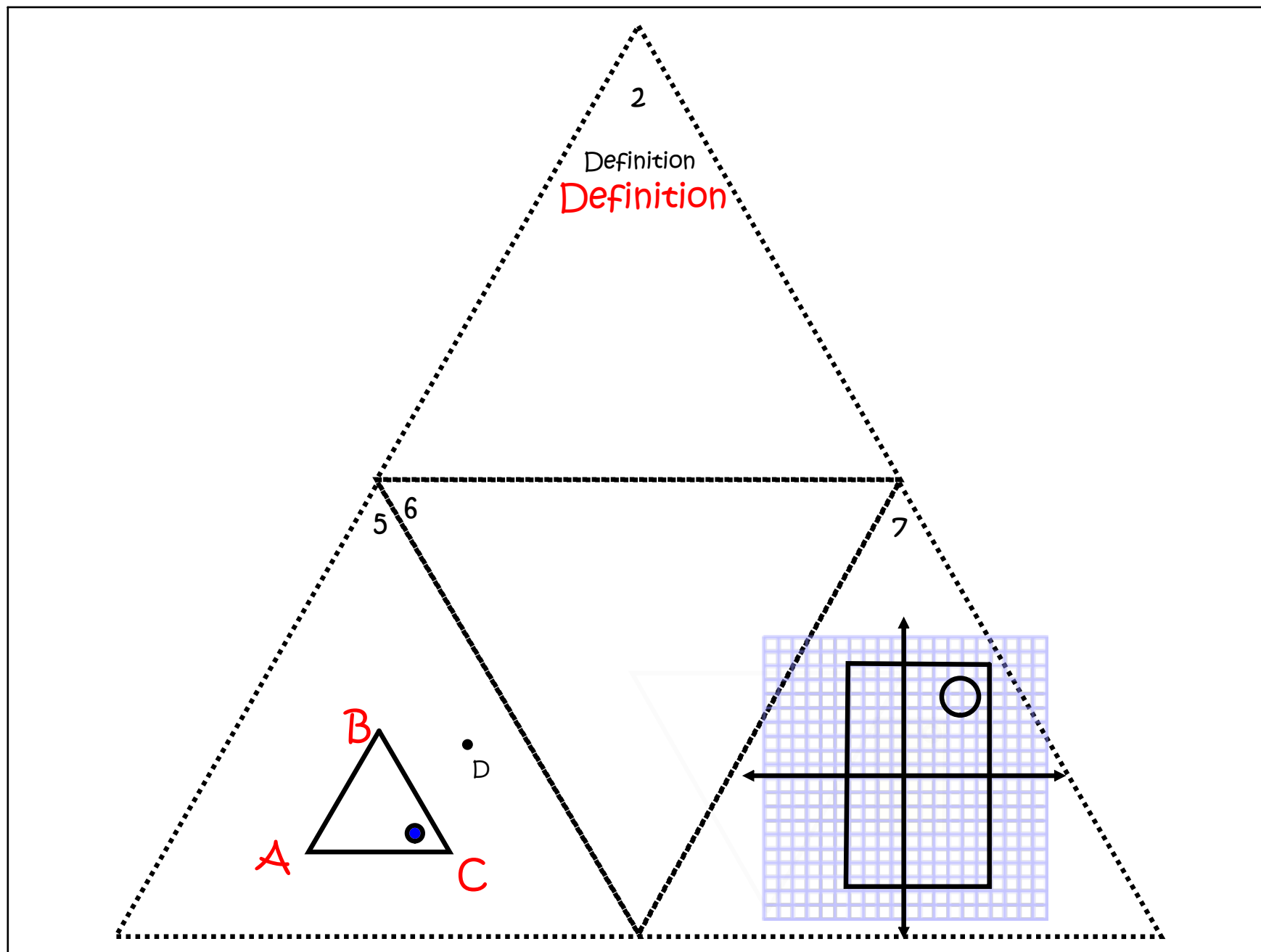
Rotation - student page 1



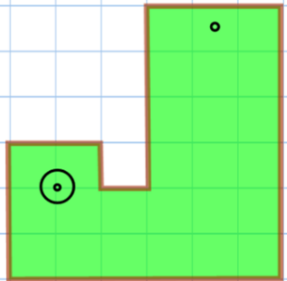

Rotation - student page 2

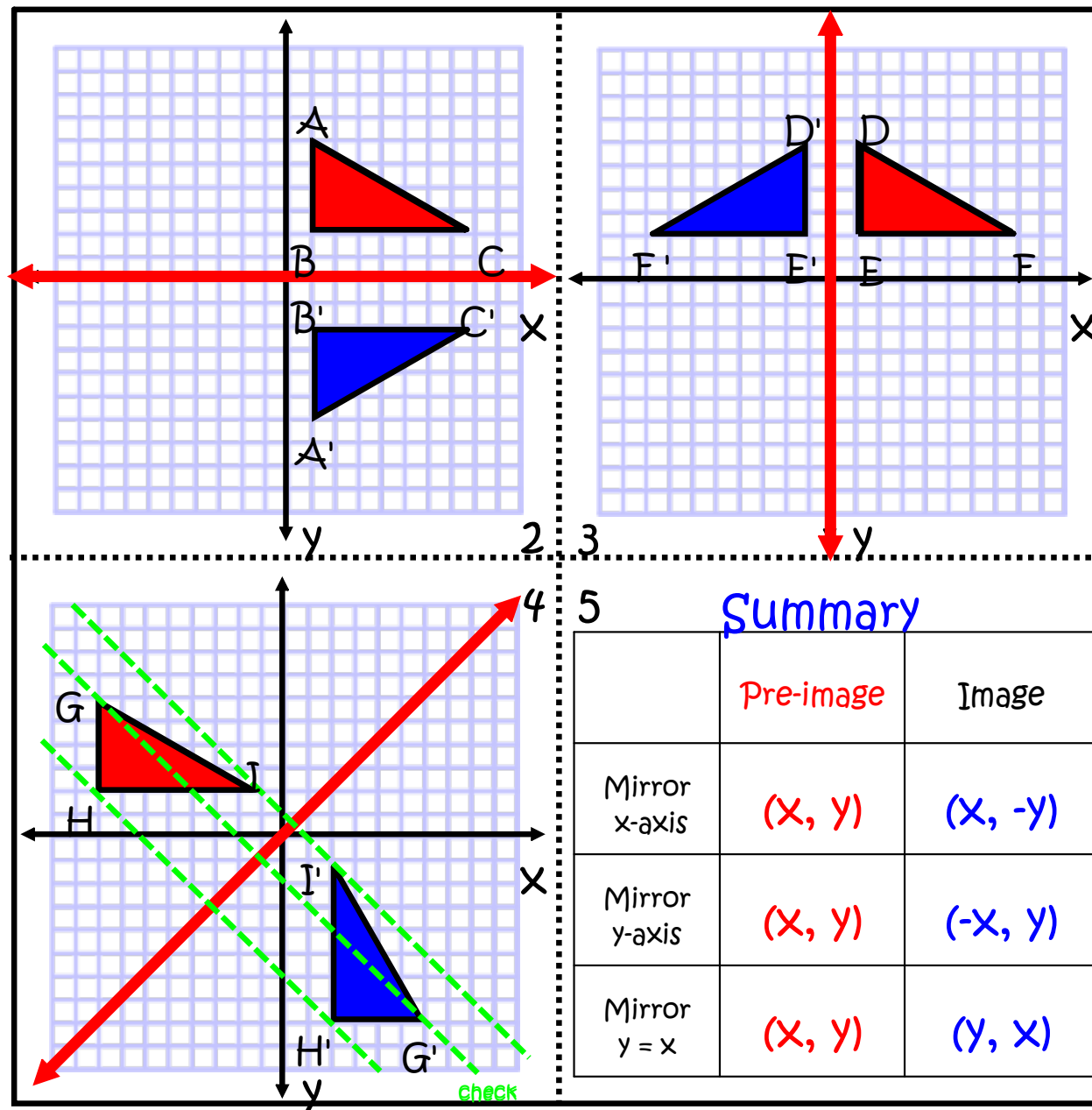


Dilation - student page 1



Dilation - student page 2

 <p>Mini Golf hole-in-one</p>	<p>2 7</p> <p>Definition: A reflection is a transformation of the plane in which each point is mapped onto its reflection image over a line or plane often called a line of reflection. The line of reflection is the perpendicular bisector of the segment connecting a preimage with its reflection image.</p> <p>Notation: $r_m(A) = A'$</p> <p>Reflection of A over line m is A'</p> <p>Properties: Reflection preserves collinearity, betweenness, distance, and angle measure and has the opposite orientation.</p>
<p>Glue here</p>	<p>1</p> <h2>Reflection</h2>  <p>"Flip"</p>



Translation



Translation

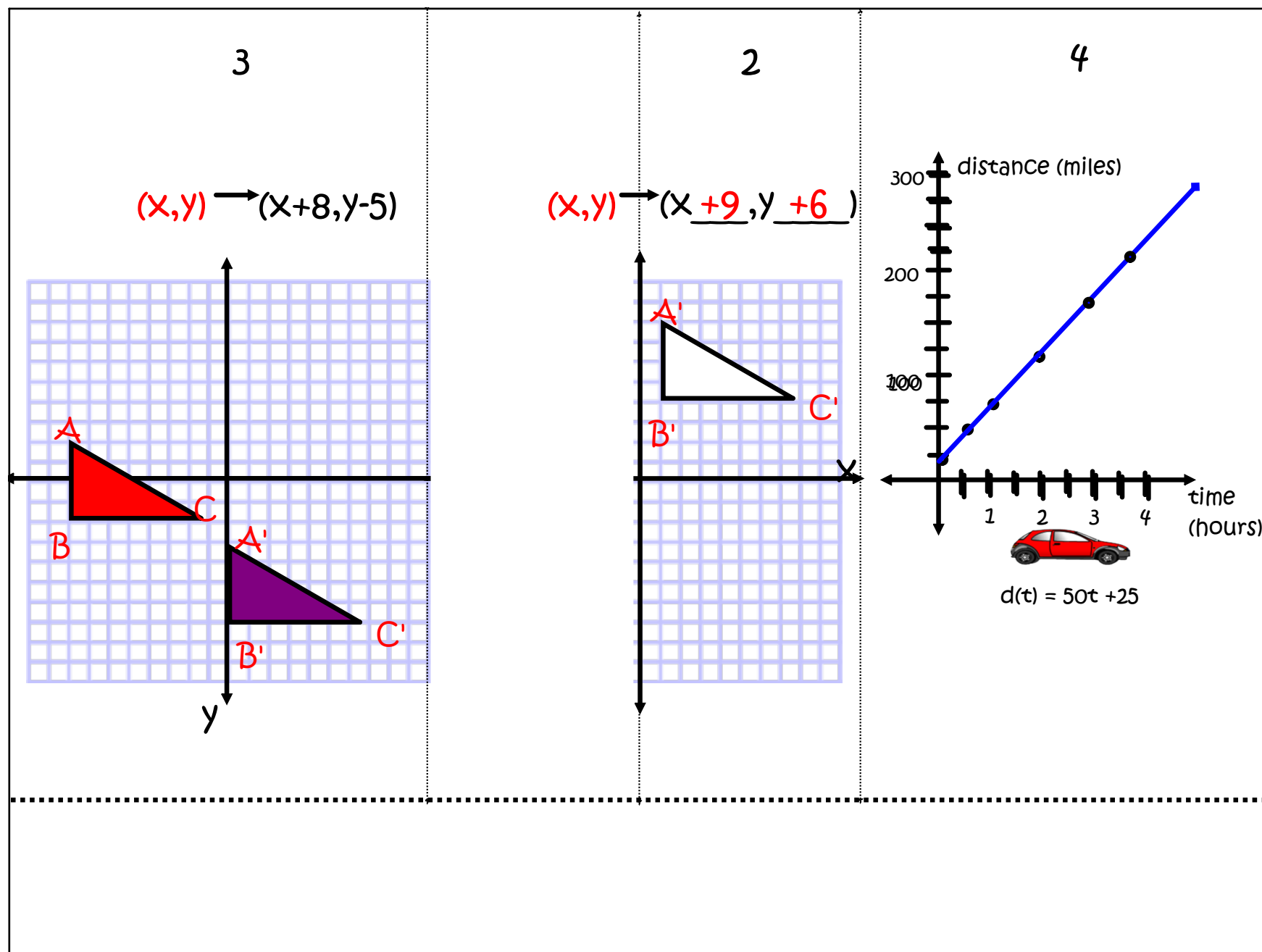
Definition: A translation is a transformation of the plane that SLIDES every point of a figure the same distance in the same direction. It is a composite of two reflections over parallel lines.

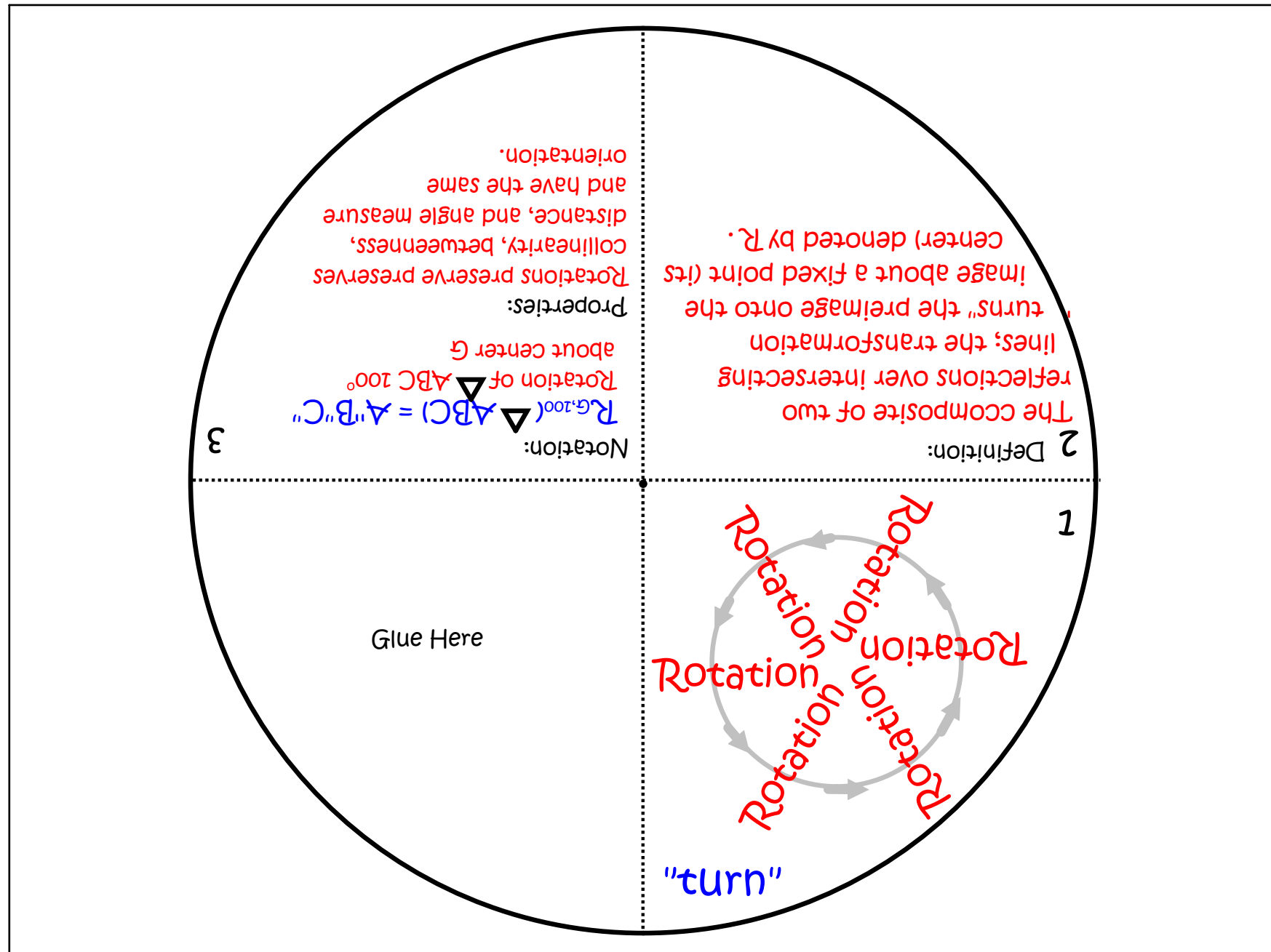
Notation:

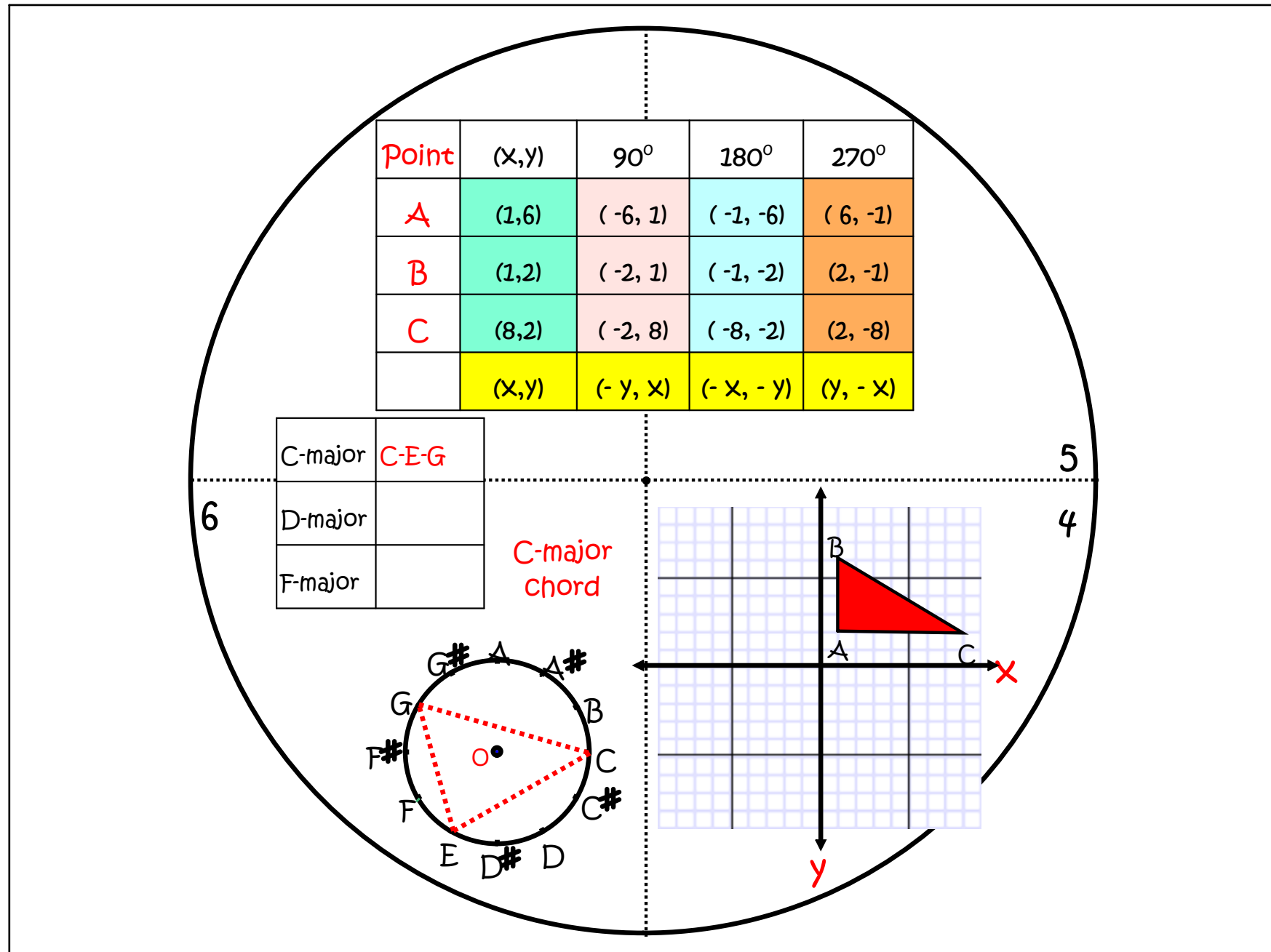
Given that $m \parallel n$, then $r_n \circ r_m (N) = r_n (r_m (N))$ where N is reflected over m and its image is reflected over n . $T(a, b)$ is used for coordinates where $(x+a, x+b)$ is the rule for each translated point.

Properties: Translations preserve collinearity, betweenness, distance, and angle measure and have the same orientation.

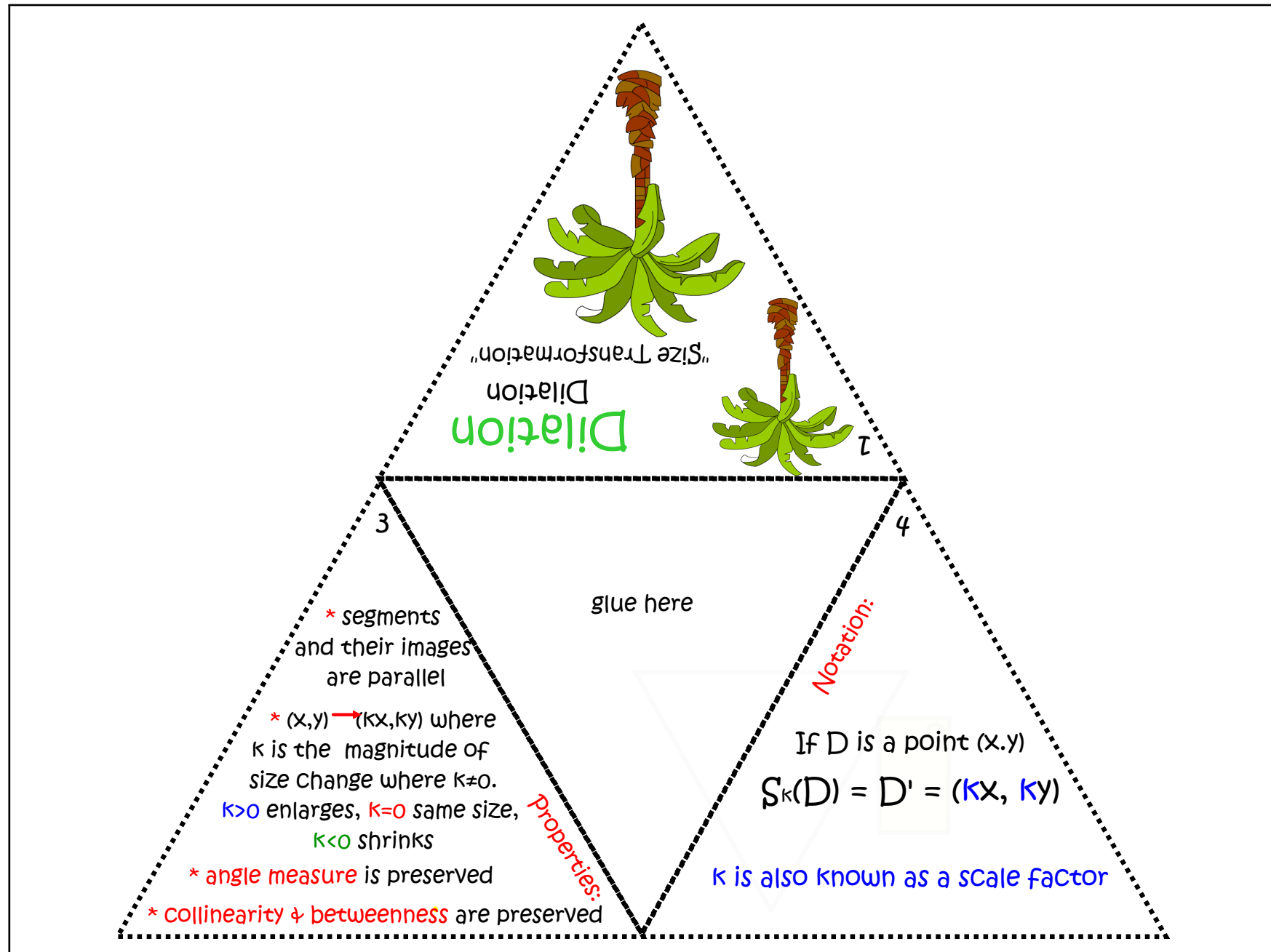
Glue Here



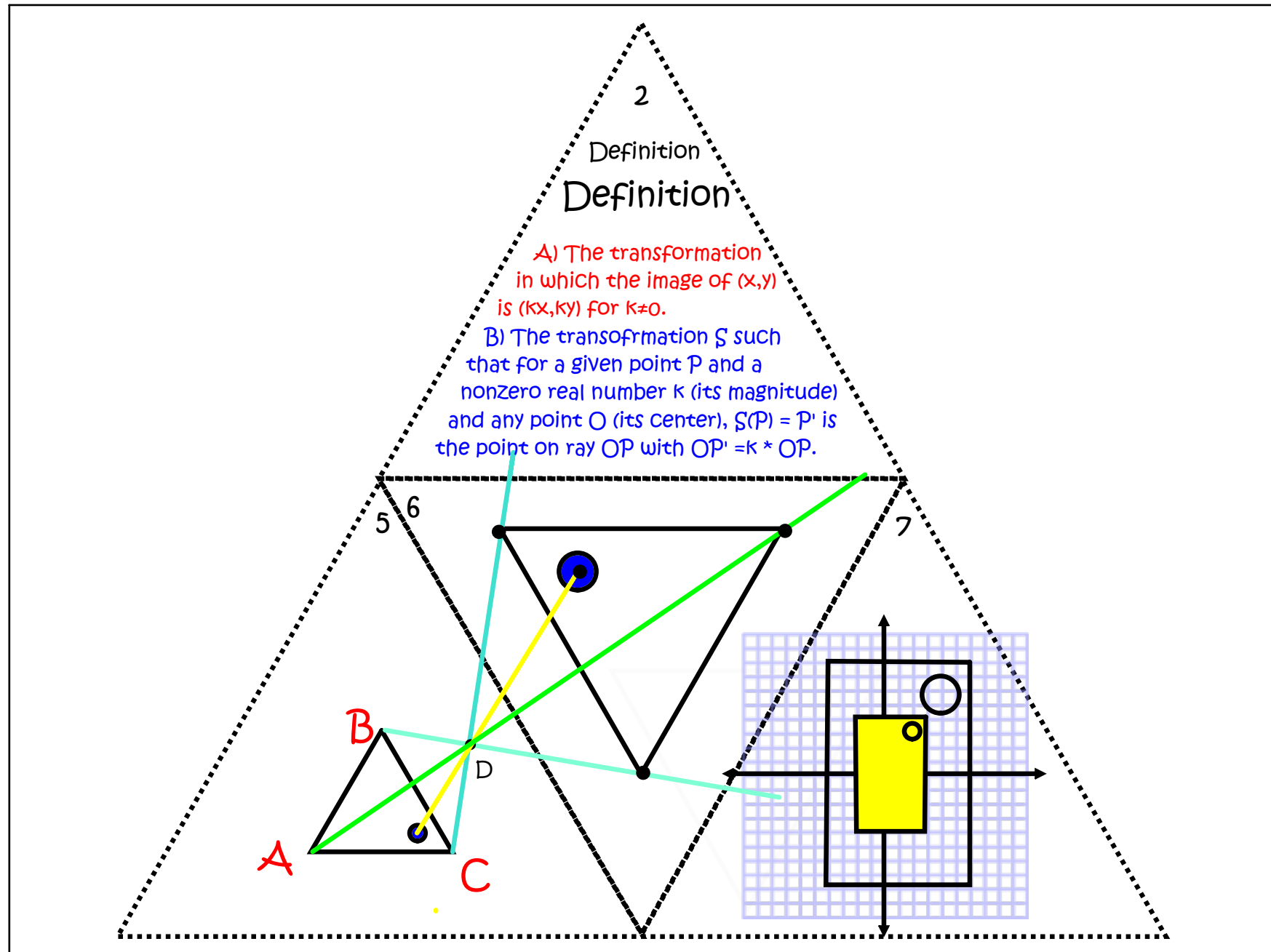




Rotation-Tchr page 2



Dilation-Tchr page 1



Dilation-Tchr page 2